REMARKS/ARGUMENTS

The Office Action of December 17, 2004, has been carefully considered.

It is noted that claims 67 and 69-84 are rejected under 35 U.S.C. §102(b) over the patent to Vandas.

Claims 67-74 and 82-85 are rejected under 35 U.S.C. §102(b) over JP 61-016817.

Claims 26, 32-45 and 63-66 are rejected under 35 U.S.C. §103(a) over the patent to Johnson in view of Vandas.

Claims 26-31 and 478 are rejected under 35 U.S.C. §103(a) over Johnson in view of JP 61-16817.

Claim 49 is rejected under 35 U.S.C. §103(a) over Johnson in view of Vandas, and further in view of JP 07-314477.

Claim 50 is rejected under 35 U.S.C. §103(a) over Johnson in view of JP 61-016817, and further in view of the patent to Holtzberg.

Claim 86 is rejected under 35 U.S.C. §103(a) over Vandas in view of JP 07-314477.

Claims 55-62 are rejected under 35 U.S.C. §103(a) over Johnson in view of Vandas, and further in view of the patent to Jones.

Claims 60-62 are rejected under 35 U.S.C. §103(a) over Johnson in view of Vandas and Jones, and further in view of the patent to Daskivich.

In view of the Examiner's rejections of the claims, applicant has canceled claims 27-29 and amended claims 26, 30 and 67.

It is respectfully submitted that the claims now on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references.

The problem solved by the presently claimed invention is to produce a supporting core with low tolerances. Use of such precise cores allows the manufacturing of fibre-reinforced plastic parts in an RTM-process with very precise wall dimensions. Such parts with low tolerances are used in the automotive industry, e.g., spoilers.

Until now, such supporting cores have been cast in casting molds into their final shape. Since cast supporting cores shrink during cooling and solidifying and as such contain shrink holes, they are not very precise in their final shape and have high tolerances. This is

disadvantageous in the production of highly precise fibre-reinforced plastic parts because it is difficult to control the wall thickness of the parts.

Thus, according to the present invention, the first step is to cast the supporting core into a preform that corresponds to the rough shape of the final core. Subsequently, the preform is press formed into the final shape by means of plastic deformation. The production of the preform and the rough shape of the final supporting core has the advantage that the flow paths of the material during press forming are short. Thus, the press forming process is faster and there is no danger that air pockets are encased or that the material warps during press forming.

The final shape of such a plastically deformed supporting core has low tolerances. Additionally, the inventive process allows production of the final shape of the supporting core (the press forming step) at a temperature which is similar or equal to the temperature which occurs during the RTM-process. In this way, changes in the dimensions of the supporting core by thermal expansion or shrinking are avoided.

Applicant respectfully submits that none of the references cited by the Examiner either alone or in the various combinations relied upon by the Examiner teach or suggest the process as recited in the claims presently on file. The Examiner states that "the limitation of 'resin transfer molding' is a functional limitation and does not carry patentable weight." Since the claims are drawn to a process, applicant submits that functional steps do carry patentable weight in the present instance.

As for the references, the references were discussed in detail in the last filed Amendment and those comments apply equally at this time. None of the cited references, nor their various combinations teach or suggest the presently claimed invention.

In Vandas and JP 61-016817, a form mass is formed by press forming a wax material. The formed mass itself is not pre-shaped, i.e., it is not in the rough form of the final shape, as in the presently claimed invention.

In view of these considerations, it is respectfully submitted that the various rejections of the claims under either 35 U.S.C. §102(b) or 35 U.S.C. §103(a) are overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on March 17, 2005:

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March 17, 2005
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Respectfully submitted,

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